

## IAC-14,E1,6.2

### Destination Station:

#### Bringing The International Space Station to Communities Across the United States

*Destination Station is NASA's International Space Station (ISS) Program national awareness traveling exhibit campaign that promotes research opportunities, educates communities in the United States about activities performed on the International Space Station, and communicates the real and potential impacts of the station on our everyday lives. In four years, Destination Station visited 11 communities engaging nearly one million people and producing tens of millions of media impressions. Destination Station connects people with their place in space and communicates the real and potential benefits of the station to life on earth. Hands-on activities, imagery and audio/visual technology demonstrate to visitors life aboard a microgravity laboratory. They also learn how the space station operates as the result of a peaceful international partnership of five space agencies representing 15 countries. Destination Station is NASA's effort to inform and energize the public about the discoveries produced by the International Space Station. Orbiting 260 miles above Earth, the space station is the largest spacecraft ever built. A portion of the U.S. segment of the International Space Station is a National Laboratory where astronauts and scientists conduct experiments in a microgravity environment on human health, life and physical science, earth and space science, as well as technologies for enabling future exploration.*

In 2010, NASA's International Space Station Program was facing a number of changes. The Program's and the world's largest carrier of cargo and largest carrier of humans into space – the Space Shuttle – was to retire in 2011. The next major NASA program – Constellation, with plans to return to the Moon and eventually Mars – was discontinued. Once the Space Shuttle flew its last mission in 2011, the common perception in the United States was that NASA was closing down and had no more work to perform. Many thought NASA consisted only of the Shuttle program. How could this be the general understanding when NASA still had astronauts on orbit continually on board International Space Station, not to mention all other science, research, technology programs NASA runs? Media headlines and stories involving NASA during this period were primarily on Shuttle retirement. In the regions of the United States that received a shuttle orbiter for a museum, there was significant news coverage about the end of the Shuttle program.

The Space Shuttle, in operation and in retirement, has been the most visible piece of NASA for over 30 years. Media coverage of Shuttle launches four or five times each year was what the average person in the country knew about NASA. Launches are spectacular and memorable, but once projects reach orbit we don't see them very often, including the International Space Station. Not many things are as exciting as the huge roar of rockets firing and billows of vapor and smoke that accompany a Shuttle launch.

At this same time, the assembly of International Space Station was completed. NASA had been focused for over a decade on the creation and assembly of this huge spacecraft. Keeping the orbiting outpost in good working order requires thousands of people spread across the world, coordinating with international teams on the ground as well as with the international crew, bringing enough supplies and food and clothing to International Space Station. Assembling a vehicle in space had never been done prior to International Space Station. Never had manufacture of systems been so widely distributed geographically on a spacecraft. The International Space Station partnership had embarked on an effort that had never been tried on this scale. It required intense work for all partners and concentrated effort to ensure the success of International Space Station. But after many years and many launches and spacewalks, the International Space Station vehicle was successfully assembled and the efforts of the partnership shifted from assembly to research.

With this background, the International Space Station Program leadership began to discuss NASA's obligation to the American public to keep them informed about the ISS and US space program. It seemed that without Shuttle launches, most Americans did not know that there were astronauts living and working in space. What more or what new effort could ensure that the public received information on what was happening on the International Space Station? What would be the best way to let citizens know what astronauts were doing on ISS? International Space Station assembly was finished and it was now time to change emphasis and concentrate on research in this new orbiting laboratory. How should NASA let the companies, research institutions and universities know that they could experiment on ISS? The International Space Station provides a unique opportunity for research. Although there are countless investigations that could be performed on ISS, just two examples of the type of research conducted onboard ISS are human physiology and lack of convection currents. Bone loss can be significant in weightlessness and research on ISS has application for bone loss or osteoporosis on Earth. Removing gravity for research experimentation on Earth can only be done for seconds from a drop tower or drop tube, but in space there can be much longer experiments without gravity. And convection currents are absent in space so that solidifying crystalline structures are not disturbed and nearly perfect crystals form. The absence of convection currents also affects flame formation, heat transfer and many other physical phenomena. But making the International Space Station laboratory environment known widely to researchers as well as the process for reaching ISS has been slow beyond a small space research community.

NASA public outreach has been ongoing for nearly as long as the agency has existed. Over the last decade, NASA ran a popular program called "Hometown Heroes" which was primarily astronaut visits to sporting events in the astronaut's home town. He or she would throw out the first pitch at a professional baseball game or make a presentation at a professional football game and do media interviews to talk about International Space Station and space in general. In addition, there were visits to museums, military institutions and hospitals, speaking, signing autographs and answering questions about living in space. NASA's International Space Station program regularly talked with elementary, middle and high school children about living and working in space. NASA

regularly briefed elected officials about its programs. The Agency also has ongoing contact with universities and other research institutions. But could these disparate external efforts be done differently? Was there a way to make them all more effective in getting information on the US efforts in space out to the American public?

This is the environment in which Destination Station and the Destination Station national awareness campaign was created. Destination Station is a travelling museum exhibit with fun and educational interactive exhibits that demonstrate various aspects of space, highlighting the International Space Station and



benefits to our lives here on Earth. It usually resides in a museum for three or four months. During the time that the Destination Station museum exhibit is housed at the museum, NASA schedules a week-long Destination Station awareness campaign. This has become the centerpiece of educational and outreach efforts for

NASA's International Space Station Program. It combines aspects of nearly all of the outreach activities that had already been established, adds new events taking advantage of local opportunities for interaction, and consolidates all of this into one week of high profile events.

A Destination Station campaign starts with marketing by the venue that hosts the Destination Station exhibit, often a science museum, and a live downlink by NASA astronauts on ISS to a gathering of young people and televised locally and regionally. These initial efforts give Destination Station wide visibility in the community. The opening of the Destination Station museum exhibit is accompanied by a program on the International Space Station along with other activities at the museum venue. The program includes NASA speakers, local officials and astronauts. This is another opportunity for media attention and communicating the benefits of research on International Space Station to the residents of the local area.

### Community Engagement

Destination Station is often scheduled when a significant municipal or regional event occurs, like a county fair or an annual city celebration. And the "Driven to Explore" (DTE) large



mobile exhibit can be taken to the event location, not only exposing the public to

International Space Station and space benefits to Earth, but pointing them to the Destination Station museum exhibit and other activities during the week as well. The DTE is a large trailer, which opens to the public with exhibits on International Space Station and research in the orbiting laboratory. There is even a rock from the Moon on display that the public can touch. During the Destination Station campaign week, DTE moves to three or four locations in the city, introducing International Space Station and its benefits in locations easy for different neighborhoods to reach.

Continuing the “Hometown Heroes” astronaut events at high profile sporting events, astronauts with some connection to the area where Destination Station is located participate in many events during the awareness campaign week. It may be a sporting event along with a visit to a military base or a municipal event focused on the children in the community.

Hospitals are often happy to create events for astronauts to visit sick children and these events can be paired with a briefing to medical researchers on current experiments on International Space Station and to explain how research projects can be flown onboard the orbiting laboratory.

When scheduling events around the community, the Destination Station team is open to new and creative ideas that will reach a new population that might not be a traditional audience. Past Destination Stations have matched a spacewalking suit designer with fashion designers, and a NASA photographer with an art event. NASA wants to take advantage of all opportunities to let all communities within a city know about International Space Station and the nation’s space program.

### **Reaching out to children**

During the campaign week, NASA speakers visit many schools in the area, often having the opportunity to talk with all of the children in the school and their teachers. Without the Destination Station campaign, most of these children would never hear a NASA person talk about the International Space Station and space.



Train Like an Astronaut is an exercise program that is widely popular among children and used by many countries around the world. In the United States, the NASA International Space Station program has worked with the National Football League and their “Play 60” program that encourages children to exercise 60 minutes each day. These joint events have an astronaut visit a Play 60 camp, do exercise routines, talk to the



children about the International Space Station and answer their questions about living – and exercising - in space.

### **Educating Local and Regional Elected Officials**

During DS campaign week, elected officials – local, regional, state and federal - are invited to a briefing where they learn about the International Space Station and research performed in the National Laboratory.

Although this effort began by travelling around the city to each elected official's offices in the community, it is now an invitation-only gathering for the elected official and his staff near the Destination Station exhibit. This allows for more interaction, not only with NASA, but also among the various officials and staff.

And because it is usually held at or near the museum with the Destination Station exhibit, they can easily visit the ISS interactive displays.



### **ISS Research - Outreach and Education**

An important emphasis of the Destination Station campaign is the research performed in the ISS National Laboratory. Not only in messaging for the Destination Station exhibit and DTE trailer traveling exhibit and other associated activities, but also in actually engaging companies and research institutions that do the type of research that could benefit from experimentation on International Space Station. The Center for the Advancement of Science in Space (CASIS) manages the International Space Station National Laboratory and partners with NASA on the Destination Station awareness campaign. The campaign affords the opportunity to reach out to universities and companies to provide information on possibilities and processes for getting experiments on International Space Station. Through the Destination Station campaign and teaming with CASIS, International Space Station has new research payloads planned for flight. Because of this success, CASIS is increasingly consulted for decisions on future locations with research potential for Destination Station planning.

Even after three years of Destination Station and Destination Station campaign, it is still evolving. In the first year, it was primarily viewed by NASA as a way to engage the American public more effectively than the varied efforts that were already underway. And while that remains a major element of Destination Station, it is not solely based on general outreach. The ability to make contact for future commercial and university partnerships has become increasingly important in driving future planning for Destination Station.

An effective and critical aspect of Destination Station is multiple levels of exposure for the community created by holding a significant number of varied activities and events within a limited timeframe. There is a significant likelihood that people in the Destination Station campaign area will hear about International Space Station and

Destination Station more than once and in different circumstances. They may hear about a Destination Station event on local news. They may see an astronaut throw out the first pitch at the baseball game. They might see the Destination Station exhibit at a visit to the science museum. Children who are educated and entertained by a NASA speaker at their school tell their family all about what they learned. NASA hopes that with multiple chances to hear and see Destination Station that the US public will become more aware and excited about all the work that is happening everyday on the International Space Station.

In 2014, Destination Station visited three cities, Los Angeles, California, Indianapolis, Indiana and San Diego, California. The Destination Station awareness campaign engaged nearly 67,000 in the general public, 2,386 researchers and 10,196 students. It is estimated that there were almost 23 million traditional media viewers and more than 30 million impressions across social media outlets including Facebook, Twitter and Instagram.

<http://jscfeatures.jsc.nasa.gov/mobi.aspx?j=1nwYP15P29TfL6q43T/P3QGKihMqrXIdCu1fP1yv3wA=>

or

<http://jscfeatures.jsc.nasa.gov/pages.ashx/133/Destination%20station%20tells%20the%20story%20of%20the%20International%20Space%20Station>

#### **Destination Station Cities:**

- **Dayton, Ohio**  
Awareness campaign week: June 17 – 24, 2011  
Exhibit on display: National Museum of US Air Force (June – July 2011)
- **Denver, Colorado**  
Awareness campaign week: September 20 – 27, 2011  
Exhibit on display: Wings Over the Rockies Museum (September – December 2011)
- **San Francisco, California/Bay Area**  
Awareness campaign week: March 1 -12, 2012  
Exhibit on display: The Tech Museum (March – May 2012)
- **Raleigh, North Carolina**  
Awareness campaign week: April 25 – May 1, 2012  
Exhibit on display: Museum of Natural Sciences (April – August 2012)
- **Boston, Massachusetts**  
Awareness campaign week: August 12 – 19, 2012  
Exhibit on display: Museum of Science (August – November 2012)
- **Phoenix, Arizona**  
Awareness campaign week: February 21 – March 2, 2013  
Exhibit on display: Arizona Museum of Natural History (December – April 2013)
- **Atlanta, Georgia**

- Awareness campaign week: April 15 -21, 2013  
Exhibit on display: Fernbank Science Center (April -May 2013)
- **Seattle, Washington**  
Awareness campaign week: June 10 – 16, 2013  
Exhibit on display: Pacific Science Center (June -September 2013); Museum of Flight (September -December 2013)
  - **Los Angeles, California**  
Awareness campaign week: Feb 17 - 21, 2014  
Exhibit on display: California Science Center (January - April 2014)
  - **Indianapolis, Indiana**  
Awareness campaign week: April 25- May 2, 2014  
Exhibit on display: Indiana State Museum (April - June 2014)
  - **San Diego, California**  
Awareness campaign week: July 13-20, 2014  
Exhibit on display: Fleet Science Center (July - September 2014)